

CLAIMS:

1. A method for controlling a visual display 16 on a display panel 12 by applying a bending force 18 to the display panel 12.
2. The method of claim 1 further comprising detecting the bending force 18 and modifying the visual display 16 in accordance with a predetermined relationship between the bending force 18 and the visual display 16.
3. The method of claim 2 wherein the display panel 12 includes a control device 30 for modifying the predetermined relationship between the bending force 18 and the visual display 16, and the method further comprises modifying the predetermined relationship between the bending force 18 and the visual display 16.
4. The method of claim 2 wherein the display panel 12 includes a control device 30 for receiving an input for modifying the visual display 16 according to a predetermined relationship between the input applied to the control device 30 and the visual display 16, and the method further comprises modifying the predetermined relationship between the input applied to the control device 30 and the visual display 16 in accordance with the bending force 18 applied to the display panel 16.
5. The method of claim 1 further comprising:
generating a torque on the display panel 12 through application of the bending force 18;
detecting the torque; and
modifying the visual display 16 in accordance with a predetermined relationship between the detected torque and the visual display 16.
6. The method of claim 5 wherein the torque includes a twisting torque component and the method further comprises detecting the twisting torque component and modifying the visual display 16 in accordance with a predetermined relationship between the detected twisting torque component and the visual display 16.

7. The method of claim 5 wherein the torque includes a bending torque component and the method further comprises detecting the bending torque component and modifying the visual display 16 in accordance with a predetermined relationship between the detected bending torque component and the visual display 16.

8. The method of claim 5 wherein the torque includes a planar torque component and the method further comprises detecting the planar torque component and modifying the visual display 16 in accordance with a predetermined relationship between the detected planar torque component and the visual display 16.

9. The method of claim 1, wherein the display panel 12 includes a housing 34 and a stowable display screen 32 which may be rolled up into and stowed within a housing 34, with the housing 34 extending along and attached to an edge of the stowable display screen 32, and the method further comprises applying the bending force 18 to the stowable display screen 32.

10. The method of claim 8 wherein the display panel 12 includes a roller 36 attached to the stowable display screen 32 for receiving the stowable display screen 32 as it is rolled up into the housing 34, and the method further comprises:

detecting a reaction on the roller 36 resulting from application of the bending force 18 to the display panel 12; and

modifying the visual display 16 in accordance with a predetermined relationship between the detected reaction on the roller 36 and the visual display 16.

11. The method of claim 10 wherein the reaction on the roller 36, resulting from application of the bending force 18 to the display panel 12, is a torque on the roller 36.

12. An apparatus for controlling a visual display 16 on a display panel 12 by applying a bending force 18 to the display panel 12, the apparatus comprising:

the display panel 12; and

a detector 20 operatively attached to the display panel 12 for detecting the bending force 18 applied to the display panel 12.

13. The apparatus of claim 12 further comprising a controller 22 operatively connected to the detector 20 and the display panel 12 for receiving the detected bending force 18 from the detector 20 and modifying the visual display in accordance with a predetermined relationship between the detected bending force 18 and the visual display 16.

14. The apparatus of claim 13 wherein the display panel 12 includes a control device 30 for modifying the predetermined relationship between the bending force 18 and the visual display 16.

15. The apparatus of claim 13 wherein the display panel 12 includes a control device 30 for receiving an input for modifying the visual display 16 according to a predetermined relationship between the input applied to the control device 30 and the visual display 16, and the controller 22 modifies the predetermined relationship between the input applied to the control device 30 and the visual display 16 in accordance with the bending force 18 applied to the display panel 12.

16. The apparatus of 14 wherein:

application of the bending force 18 to the display panel 12 generates a torque on the display panel 12; and

the controller 22 modifies the visual display 16 in accordance with a predetermined relationship between the torque and the visual display 16.

17. The apparatus of claim 16 wherein the torque includes a twisting torque component and the controller 22 modifies the visual display 16 in accordance with a predetermined relationship between the twisting torque component and the visual display 16.

18. The apparatus of claim 16 wherein the torque includes a bending torque component and the controller 22 modifies the visual display 16 in accordance with a predetermined relationship between the bending torque component and the visual display 16.

19. The apparatus of claim 16 wherein the torque includes a planar torque component and the controller 22 modifies the visual display 16 in accordance with a predetermined relationship between the planar torque component and the visual display 16.

20. The apparatus of claim 12, wherein the display panel 12 comprises:
a housing 34; and
a stowable display screen 32 which may be rolled up into and stowed within the housing 34;
the housing 34 extending along and attached to an edge of the stowable display screen 32.

21. The apparatus of claim 20 wherein:
the display panel 12 includes a roller 36 attached to the stowable display screen 32 for receiving the stowable display screen 32 as it is rolled up into the housing;
the detector 20 is operatively connected to the roller 36 for detecting a reaction on the roller 36 resulting from application of the bending force 18 to the display panel 12; and
the controller 22 modifies the visual display 16 in accordance with a predetermined relationship between the detected reaction on the roller 36 and the visual display 16.

22. The apparatus of claim 21 wherein the reaction of the bending force 18 on the roller 36, resulting from application of the bending force 18 to the display panel 12, is a torque on the roller 36.

23. A portable electronic device 10 comprising:
a display panel 12;
a processor 14 for generating a visual display 16 on a display panel 12; and
an apparatus for controlling the visual display 16 on the display panel 12 by applying a bending force 18 to the display panel 12;
the apparatus for controlling the visual display 16 comprising the display panel and a detector 20 operatively attached to the display panel 12 for detecting the bending force 18 applied to the display panel 12.

24. The portable electronic device 10 of claim 23 further comprising a controller 22 operatively connected to the detector 20 and the display panel 12 for receiving the detected

bending force 18 from the detector 20 and modifying the visual display 16 in accordance with a predetermined relationship between the detected bending force 18 and the visual display 16.

25. The electronic device 10 of claim 24 wherein:
the visual display 16 includes a movable cursor 28; and
the controller 22 modifies the visual display 16 by moving the cursor 28 in accordance with a predetermined relationship between the detected bending force 18 and the visual display 16.
26. The electronic device 10 of claim 24 wherein:
the visual display 16 is scrollable; and
the controller 22 modifies the visual display 16 by scrolling the visual display 16 in accordance with a predetermined relationship between the detected bending force 18 and the visual display 16.
27. The electronic device 10 of claim 24 wherein:
the visual display 16 includes a pageup/down mode; and
the controller 22 modifies the visual display 16 by paging up/down in accordance with a predetermined relationship between the detected bending force 18 and the visual display 16.